

Release notes for ENDF/B Development n-069\_Tm\_170  
evaluation

**ENDF**  
**B-VII**.dev

April 26, 2017

- **psyche** Warnings:

1. Non-threshold reaction with Q value differing from PSYCHE's expectations  
*FILE 3 / SECTION 22 / THE CALCULATED Q 7.43248E+05 DISSAGREES WITH THE GIVEN Q 8.51000E+05 (0): Iffy Q*

```
FILE 3
SECTION 22
THE CALCULATED Q 7.43248E+05 DISSAGREES WITH THE GIVEN Q 8.51000E+05
```

2. Non-threshold reaction with Q value differing from PSYCHE's expectations  
*FILE 3 / SECTION 112 / THE CALCULATED Q 1.54363E+06 DISSAGREES WITH THE GIVEN Q 1.14600E+06 (0): Iffy Q*

```
FILE 3
SECTION 112
THE CALCULATED Q 1.54363E+06 DISSAGREES WITH THE GIVEN Q 1.14600E+06
```

- **linear** Errors:

1. Negative cross section found  
*0: Neg. Sig(E)*

```
Linearize ENDF/B Cross Sections (LINEAR 2015-1)
-----
Retrieval Criteria----- MAT
Monitor Mode----- Off
Minimum Cross Section----- 1.0000E-10 (Default Option)
... [169 more lines]
```

- **fudge-4.0** Warnings:

1. Potential scattering hasn't converted, you need more L's!  
*resonances / resolved / MultiLevel-BreitWigner (Error # 0): potentialScatteringNot-Converged*

WARNING: Potential scattering hasn't converged by L=0 at E=89.6 eV, xs[0]/xs[0]=100.0% > 0.1%

2. Cross section does not match sum of linked reaction cross sections  
*crossSectionSum label 0: total (Error # 0): CS Sum.*

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 2.59%

3. Cross section does not match sum of linked reaction cross sections  
*crossSectionSum label 1: (z,n) (Error # 0): CS Sum.*

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 13.86%

- **fudge-4.0** Errors:

1. Calculated and tabulated Q values disagree.  
*reaction label 41: n[multiplicity:'2'] + Tm169 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -6565003.797332764 eV vs -6.5934e6 eV!

2. Energy range of data set does not match cross section range  
reaction label 41:  $n[multiplicity: '2'] + Tm169 + gamma$  / Product:  $n$  / Distribution: /  
energyAngular - XYs3d: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6632130.0 -> 30000000.0) vs (6632536.0 -> 30000000.0)

3. Energy range of data set does not match cross section range  
reaction label 41:  $n[multiplicity: '2'] + Tm169 + gamma$  / Product:  $gamma$  / Multiplic-  
ity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6632130.0 -> 30000000.0) vs (6632536.0 -> 30000000.0)

4. Energy range of data set does not match cross section range  
reaction label 41:  $n[multiplicity: '2'] + Tm169 + gamma$  / Product:  $gamma$  / Distribu-  
tion: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6632130.0 -> 30000000.0) vs (6632536.0 -> 30000000.0)

5. Energy range of data set does not match cross section range  
reaction label 41:  $n[multiplicity: '2'] + Tm169 + gamma$  / Product:  $gamma$  / uncorre-  
lated - energy - XYs2d: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6632130.0 -> 30000000.0) vs (6632536.0 -> 30000000.0)

6. Calculated and tabulated Q values disagree.  
reaction label 42:  $n[multiplicity: '3'] + Tm168 + gamma$  (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -14598619.93673706 eV vs -1.4626e7 eV!

7. Calculated and tabulated Q values disagree.  
reaction label 43:  $n[multiplicity: '4'] + Tm167 + gamma$  (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -21439290.28005981 eV vs -2.1466e7 eV!

8. Calculated and tabulated Q values disagree.  
reaction label 44:  $n + H1 + Er169 + gamma$  (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6133486.94543457 eV vs -3.938e6 eV!

9. Calculated and tabulated Q values disagree.  
reaction label 45:  $H1 + Er170$  (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 1123753.124664307 eV vs 1.096e6 eV!

10. Calculated and tabulated Q values disagree.  
reaction label 46:  $H1 + Er170\_e1$  (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 1045153.124664307 eV vs 1.0174e6 eV!

11. Calculated and tabulated Q values disagree.  
reaction label 47:  $H1 + Er170\_e2$  (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 863603.1246643066 eV vs 835850. eV!

12. Calculated and tabulated Q values disagree.  
*reaction label 48: H1 + Er170\_e3 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 583033.1246643066 eV vs 555280. eV!
13. Calculated and tabulated Q values disagree.  
*reaction label 49: H1 + Er170\_e4 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 232863.1246643066 eV vs 205110. eV!
14. Calculated and tabulated Q values disagree.  
*reaction label 50: H1 + Er170\_e5 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 208733.1246643066 eV vs 180980. eV!
15. Calculated and tabulated Q values disagree.  
*reaction label 51: H1 + Er170\_e6 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 189723.1246643066 eV vs 161970. eV!
16. Calculated and tabulated Q values disagree.  
*reaction label 52: H1 + Er170\_e7 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 163753.1246643066 eV vs 1.36e5 eV!
17. Calculated and tabulated Q values disagree.  
*reaction label 53: H1 + Er170\_e8 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 113213.1246643066 eV vs 85460. eV!
18. Calculated and tabulated Q values disagree.  
*reaction label 54: H1 + Er170\_e9 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: 20393.12466430664 eV vs -7360. eV!
19. Calculated and tabulated Q values disagree.  
*reaction label 55: H1 + Er170\_e10 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: -3566.875335693359 eV vs -31320. eV!
20. Calculated and tabulated Q values disagree.  
*reaction label 56: H1 + Er170\_e11 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: -93746.87533569336 eV vs -1.215e5 eV!
21. Calculated and tabulated Q values disagree.  
*reaction label 57: H1 + Er170\_e12 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: -112856.8753356934 eV vs -140610. eV!
22. Calculated and tabulated Q values disagree.  
*reaction label 58: H1 + Er170\_e13 (Error # 0): Q mismatch*  
  
WARNING: Calculated and tabulated Q-values disagree: -142886.8753356934 eV vs -170640. eV!

23. Calculated and tabulated Q values disagree.  
*reaction label 59: H1 + Er170\_e14 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -144936.8753356934 eV vs -172690. eV!
24. Calculated and tabulated Q values disagree.  
*reaction label 60: H1 + Er170\_e15 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -180246.8753356934 eV vs -2.08e5 eV!
25. Calculated and tabulated Q values disagree.  
*reaction label 61: H1 + Er170\_e16 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -180826.8753356934 eV vs -208580. eV!
26. Calculated and tabulated Q values disagree.  
*reaction label 62: H1 + Er170\_e17 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -181496.8753356934 eV vs -209250. eV!
27. Calculated and tabulated Q values disagree.  
*reaction label 63: H1 + Er170\_e18 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -200536.8753356934 eV vs -228290. eV!
28. Calculated and tabulated Q values disagree.  
*reaction label 64: H1 + Er170\_e19 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -208246.8753356934 eV vs -2.36e5 eV!
29. Calculated and tabulated Q values disagree.  
*reaction label 65: H1 + Er170\_e20 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -211246.8753356934 eV vs -2.39e5 eV!
30. Calculated and tabulated Q values disagree.  
*reaction label 66: H1 + Er170\_e21 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -216456.8753356934 eV vs -244210. eV!
31. Calculated and tabulated Q values disagree.  
*reaction label 67: H1 + Er170\_e22 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -226746.8753356934 eV vs -2.545e5 eV!
32. Calculated and tabulated Q values disagree.  
*reaction label 68: H1 + Er170\_e23 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -246846.8753356934 eV vs -2.746e5 eV!
33. Calculated and tabulated Q values disagree.  
*reaction label 69: H1 + Er170\_e24 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -248346.8753356934 eV vs -2.761e5 eV!

34. Calculated and tabulated Q values disagree.  
*reaction label 70: H1 + Er170\_e25 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -252846.8753356934 eV vs -2.806e5 eV!
35. Calculated and tabulated Q values disagree.  
*reaction label 71: H1 + Er170\_e26 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -261656.8753356934 eV vs -289410. eV!
36. Calculated and tabulated Q values disagree.  
*reaction label 72: H1 + Er170\_e27 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -278206.8753356934 eV vs -305960. eV!
37. Calculated and tabulated Q values disagree.  
*reaction label 73: H1 + Er170\_e28 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -289386.8753356934 eV vs -317140. eV!
38. Calculated and tabulated Q values disagree.  
*reaction label 74: H1 + Er170\_e29 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -292496.8753356934 eV vs -320250. eV!
39. Calculated and tabulated Q values disagree.  
*reaction label 75: H1 + Er170\_e30 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -298346.8753356934 eV vs -3.261e5 eV!
40. Calculated and tabulated Q values disagree.  
*reaction label 76: H1 + Er170\_e31 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -309216.8753356934 eV vs -336970. eV!
41. Calculated and tabulated Q values disagree.  
*reaction label 77: H1 + Er170\_e32 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -359606.8753356934 eV vs -387360. eV!
42. Calculated and tabulated Q values disagree.  
*reaction label 78: H1 + Er170\_e33 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -360056.8753356934 eV vs -387810. eV!
43. Calculated and tabulated Q values disagree.  
*reaction label 79: H1 + Er170\_e34 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -364156.8753356934 eV vs -391910. eV!
44. Calculated and tabulated Q values disagree.  
*reaction label 80: H1 + Er170\_e35 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -372336.8753356934 eV vs -400090. eV!

45. Calculated and tabulated Q values disagree.  
*reaction label 81: H1 + Er170\_e36 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -377116.8753356934 eV vs -404870. eV!
46. Calculated and tabulated Q values disagree.  
*reaction label 82: H1 + Er170\_e37 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -382476.8753356934 eV vs -410230. eV!
47. Calculated and tabulated Q values disagree.  
*reaction label 83: H1 + Er170\_e38 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -402666.8753356934 eV vs -430420. eV!
48. Calculated and tabulated Q values disagree.  
*reaction label 84: H1 + Er170\_e39 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -415246.8753356934 eV vs -4.43e5 eV!
49. Calculated and tabulated Q values disagree.  
*reaction label 85: H1 + (Er170\_c ->Er170 + gamma) (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -415246.8753356934 eV vs -4.43e5 eV!
50. Calculated and tabulated Q values disagree.  
*reaction label 86: He4 + Ho167 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 8160540.197937012 eV vs 8.135e6 eV!
51. Calculated and tabulated Q values disagree.  
*reaction label 87: He4 + Ho167\_e1 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 8062540.197937012 eV vs 8.037e6 eV!
52. Calculated and tabulated Q values disagree.  
*reaction label 88: He4 + Ho167\_e2 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7940540.197937012 eV vs 7.915e6 eV!
53. Calculated and tabulated Q values disagree.  
*reaction label 89: He4 + Ho167\_e3 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7901200.197937012 eV vs 7875660. eV!
54. Calculated and tabulated Q values disagree.  
*reaction label 90: He4 + Ho167\_e4 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7840790.197937012 eV vs 7815250. eV!
55. Calculated and tabulated Q values disagree.  
*reaction label 91: He4 + Ho167\_e5 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7768060.197937012 eV vs 7742520. eV!

56. Calculated and tabulated Q values disagree.  
*reaction label 92: He4 + Ho167\_e6 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7757540.197937012 eV vs 7.732e6 eV!
57. Calculated and tabulated Q values disagree.  
*reaction label 93: He4 + Ho167\_e7 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7750570.197937012 eV vs 7725030. eV!
58. Calculated and tabulated Q values disagree.  
*reaction label 94: He4 + Ho167\_e8 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7652540.197937012 eV vs 7.627e6 eV!
59. Calculated and tabulated Q values disagree.  
*reaction label 95: He4 + Ho167\_e9 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7620540.197937012 eV vs 7.595e6 eV!
60. Calculated and tabulated Q values disagree.  
*reaction label 96: He4 + Ho167\_e10 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7590850.197937012 eV vs 7565310. eV!
61. Calculated and tabulated Q values disagree.  
*reaction label 97: He4 + Ho167\_e11 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7458540.197937012 eV vs 7.433e6 eV!
62. Calculated and tabulated Q values disagree.  
*reaction label 98: He4 + Ho167\_e12 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7356540.197937012 eV vs 7.331e6 eV!
63. Calculated and tabulated Q values disagree.  
*reaction label 99: He4 + Ho167\_e13 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7238540.197937012 eV vs 7.213e6 eV!
64. Calculated and tabulated Q values disagree.  
*reaction label 100: He4 + Ho167\_e14 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7186540.197937012 eV vs 7.161e6 eV!
65. Calculated and tabulated Q values disagree.  
*reaction label 101: He4 + Ho167\_e15 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7154540.197937012 eV vs 7.129e6 eV!
66. Calculated and tabulated Q values disagree.  
*reaction label 102: He4 + Ho167\_e16 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7068540.197937012 eV vs 7.043e6 eV!



67. Calculated and tabulated Q values disagree.  
*reaction label 103: He4 + Ho167\_e17 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7061040.197937012 eV vs 7.0355e6 eV!
68. Calculated and tabulated Q values disagree.  
*reaction label 104: He4 + Ho167\_e18 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7011540.197937012 eV vs 6.986e6 eV!
69. Calculated and tabulated Q values disagree.  
*reaction label 105: He4 + Ho167\_e19 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 6995540.197937012 eV vs 6.97e6 eV!
70. Calculated and tabulated Q values disagree.  
*reaction label 106: He4 + Ho167\_e20 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 6991740.197937012 eV vs 6.9662e6 eV!
71. Calculated and tabulated Q values disagree.  
*reaction label 107: He4 + Ho167\_e21 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 6919940.197937012 eV vs 6.8944e6 eV!
72. Calculated and tabulated Q values disagree.  
*reaction label 108: He4 + Ho167\_e22 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 6885540.197937012 eV vs 6.86e6 eV!
73. Calculated and tabulated Q values disagree.  
*reaction label 109: He4 + Ho167\_e23 (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 6757540.197937012 eV vs 6.732e6 eV!
74. Calculated and tabulated Q values disagree.  
*reaction label 110: He4 + (Ho167\_c -> Ho167 + gamma) (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 6757540.197937012 eV vs 6.732e6 eV!
75. Calculated and tabulated Q values disagree.  
*reaction label 111: Tm171 + gamma (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 7513263.269561768 eV vs 7.4864e6 eV!
76. Calculated and tabulated Q values disagree.  
*reaction label 112: n + He4 + Ho166 + gamma (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: 879568.4540405273 eV vs 8.51e5 eV!
77. Calculated and tabulated Q values disagree.  
*reaction label 113: n + He3 + Ho167 + gamma (Error # 0): Q mismatch*
- WARNING: Calculated and tabulated Q-values disagree: -12415945.9402771 eV vs 8.135e6 eV!

78. Calculated and tabulated Q values disagree.  
*reaction label 114: H1 + H2 + Ho168 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -12063767.50167847 eV vs -6.579e6 eV!

79. Calculated and tabulated Q values disagree.  
*reaction label 115: H1 + He4 + Dy166 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 1175585.524383545 eV vs 1.146e6 eV!

80. Calculated and tabulated Q values disagree.  
*reaction label 116: H2 + (Er169\_s ->Er169 + gamma) (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -3913293.942749023 eV vs -3.938e6 eV!

81. Calculated and tabulated Q values disagree.  
*reaction label 117: He3 + (Ho168\_s ->Ho168 + gamma) (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -6564448.686828613 eV vs -6.579e6 eV!

• njoy2012 Warnings:

1. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (0): HEATR/hinit (4)*

---message from hinit---mf6, mt 16 does not give recoil za= 69169  
 one-particle recoil approx. used.

2. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (1): HEATR/hinit (4)*

---message from hinit---mf6, mt 17 does not give recoil za= 69168  
 one-particle recoil approx. used.

3. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (2): HEATR/hinit (4)*

---message from hinit---mf6, mt 22 does not give recoil za= 67166  
 one-particle recoil approx. used.

4. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (3): HEATR/hinit (4)*

---message from hinit---mf6, mt 28 does not give recoil za= 68169  
 one-particle recoil approx. used.

5. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (4): HEATR/hinit (4)*

---message from hinit---mf6, mt 34 does not give recoil za= 67167  
 one-particle recoil approx. used.

6. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (5): HEATR/hinit (4)*

- message from hinit---mf6, mt 37 does not give recoil za= 69167  
one-particle recoil approx. used.
7. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (6): HEATR/hinit (4)*
- message from hinit---mf6, mt 91 does not give recoil za= 69170  
one-particle recoil approx. used.
8. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (7): HEATR/hinit (4)*
- message from hinit---mf6, mt102 does not give recoil za= 69171  
photon momentum recoil used.
9. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (8): HEATR/hinit (4)*
- message from hinit---mf6, mt104 does not give recoil za= 68169  
one-particle recoil approx. used.
10. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (9): HEATR/hinit (4)*
- message from hinit---mf6, mt106 does not give recoil za= 67168  
one-particle recoil approx. used.
11. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (10): HEATR/hinit (4)*
- message from hinit---mf6, mt112 does not give recoil za= 66166  
one-particle recoil approx. used.
12. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (11): HEATR/hinit (4)*
- message from hinit---mf6, mt115 does not give recoil za= 67168  
one-particle recoil approx. used.
13. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (12): HEATR/hinit (4)*
- message from hinit---mf6, mt649 does not give recoil za= 68170  
one-particle recoil approx. used.
14. Recoil is not given, so one-particle recoil approximation used.  
*heatr...prompt kerma (13): HEATR/hinit (4)*
- message from hinit---mf6, mt849 does not give recoil za= 67167  
one-particle recoil approx. used.

- **acelst** Warnings:

1. The incident energy grid is not monotonic for this angular distribution  
*0: Bad Ang. Dist.*

```
ACELST WARNING - Processing Ang.Dist.MT          2
                  E-grid non-monotonic  1.800000000E+01 1.800000000E+01
```

- endf2htm Warnings:

1. Build of a section of the HTML page failed because the format hasn't been implemented in ENDF2HTML.  
*MF32MT151: Unimplemented*

```
At line 2659 of file endf.f
Fortran runtime error: Bad value during integer read
```